

REPTILIA: SQUAMATA: GEKKONIDAE

Sphaerodactylus sabanus

Catalogue of American Amphibians and Reptiles.

Hensley, R.L. and R. Powell. 2006. *Sphaerodactylus sabanus*.

***Sphaerodactylus sabanus* Cochran**
Saba Dwarf Gecko

Lacerta sputator: Sparrman 1784:164 (part). See **Remarks**.

Sphaerodactylus sabanus Cochran 1938:148. Type-locality, "Saba Island." Holotype, National Museum of Natural History (USNM) 103985, an adult male, collected by S.T. Danforth in January 1937 (not examined by authors).

• **CONTENT.** No subspecies are recognized.

• **DEFINITION.** *Sphaerodactylus sabanus* is a moderately sized dwarf gecko, with a maximum SVL of 30 mm in males and 28 mm in females. Keeled, granular to imbricate dorsal scales number 33–42 and smooth, cycloid, ventrals number 28–33 from axilla to groin. Midbody granular scale rows are 47–66. Keeled, flat, imbricate, and acute subcaudals are enlarged midventrally. Snout scales are flat and smooth and consist of 2 postnasals, 1–3 (usually 2) internasals; and usually 3 upper labials. Gular scales are keeled. The escutcheon is 5–6 scales long and 22–28 scales wide (Schwartz and Henderson 1991).

No sexual dichromatism is known to occur (see **Remarks**). Dorsal ground color ranges from light to dark brown and some individuals are uniformly colored. If patterned, the head is dull orange. Dark brown stripes extend from the nostrils through the eyes and onto the neck, where they turn toward the midline just anterior to the scapular region and fuse with each other. A dark brown (or buff, outlined in black) line extends from the tip of the snout posteriorly between the eyes, then divides, each half passing to a point immediately posterior to the eyes, continues posteriorly and returns toward the midline, circles an occipital spot, and fuses with the dark line from the opposite side just anterior to the scapular region. The head stripes may fragment to form series of spots or may fuse with one another to form vermiculations. The occipital spot is usually dark brown to black, or a white spot with dark edges. The trunk pattern consists of dorsolateral rows of light brown to white spots that become more pronounced (but are sometimes absent) in the sacral region. Spots unite to form white stripes on the tail. The throat is white (with yellow suffusion) or yellow to faint orange. The venter is light brown, pale yellow, gray, or white. The juvenile pattern is identical to that of adults, but the longitudinal stripes on the head may be more pronounced and the vermiculate head patterns seen in many adults are less pronounced. The iris is brown (Saba) or black with a yellow pupillary ring (St. Kitts Bank).

• **DIAGNOSIS.** The only other species of *Sphaerodactylus* that occurs sympatrically with *S. sabanus* is

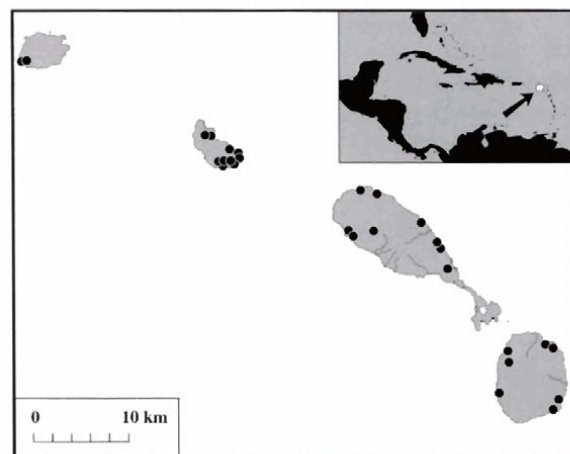
S. sputator. The two species are readily distinguished by size (maximum known SVL in *S. sputator* is 35 mm in males and 39 mm in females) and the presence of keeled gular scales (smooth in *S. sputator*) (Schwartz and Henderson 1985, 1991).

• **DESCRIPTIONS.** Descriptions of the species, other than the original of Cochran (1938), are in King (1962), Schwartz and Henderson (1991), Malhotra and Thorpe (1999), and Powell et al. (2005).

• **ILLUSTRATIONS.** Malhotra and Thorpe (1999) and Powell et al. (2005) included color photographs. Line drawings are in King (1962). Sparrman (1784) provided a line drawing of what he considered a male *S. sputator* (see also **Remarks**). Powell et al. (2005) illustrated habitat.



Figure 1. Adult *Sphaerodactylus sabanus*. Photograph by John S. Parmelee, Jr.



Map. Distribution of *Sphaerodactylus sabanus*: Dots indicate locality records (modified from Schwartz and Henderson 1991). The type-locality ("Saba Island") is too imprecise to plot. Some dots indicate several geographically proximate localities.

• **DISTRIBUTION.** *Sphaerodactylus sabanus* is widely distributed across the Saba and St. Christopher (St. Kitts) banks. The species has been recorded from Saba, St. Eustatius, St. Christopher, and Nevis. The species can be found in a variety of microhabitats (e.g., rocks, logs, dead agave plants, leaf litter, and human debris), most in relatively mesic situations, but also in xeric scrub.

• **FOSSIL RECORD.** None.

• **PERTINENT LITERATURE.** Schwartz and Henderson (1991) summarized natural history. Hass (1991, 1996) and Kluge (1995) addressed phylogenetic relationships among Lesser Antillean *Sphaerodactylus*. Hensley et al. (2004) discussed habitat selection and abundance on St. Eustatius. Powell and Henderson (2005) noted the species' abundance on St. Eustatius. Wissmann et al. (2005) examined social behavior. Powell et al. (2005) provided a description and an overview of distribution, natural history, and conservation status.

The species is included in general works, checklists, guides, and keys (some may include brief descriptions) by Censky and Kaiser (1999), Cochran (1961), Frank and Ramus (1995), Hutchins et al. (2002), Kluge (1991, 2001), MacLean et al. (1977), Powell et al. (1996), Schwartz (1973), Schwartz and Henderson (1985, 1988), Schwartz and Thomas (1975), Sokolov (1988), Underwood (1962), van Ditzhuijzen (2004), and Wermuth (1965).

• **REMARKS.** Sparrman (1784) and Barbour (1923)

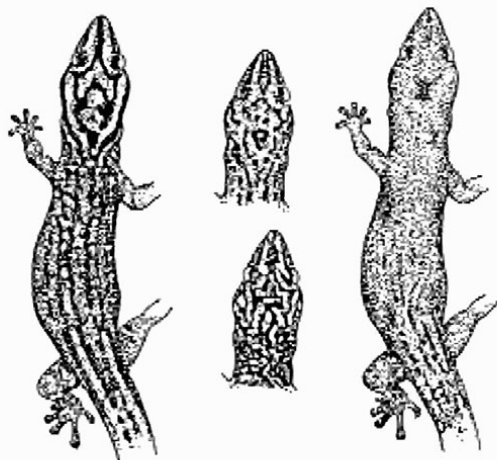


Figure 2. Variation in the markings of adult *Sphaerodactylus sabanus*, (left) UF 10045.1; (center, top) MCZ untagged specimen in series 54010–54015; (center bottom) UF 10042.3; (right) UF 10044.7 (from King 1962).

considered *S. sputator* a dichromatic species, but King (1960) believed this to be an error. King (1962) stated "that the purported dichromatism was actually due to the fact that two species, *sputator* and *sabanus*, were represented in the syntypes" (Censky and Kaiser 1999, Breuil 2002).

King (1962) noted that "poor descriptions, resulting in the misapplication of names, ... has confused the taxonomy of the lizard genus *Sphaerodactylus* in the Lesser Antilles." Hass (1996) indicated that the Lesser Antillean species form a group, but a more complete understanding will require further study.

• **ETYMOLOGY.** The specific epithet, *sabanus*, is in reference to the island of Saba, the type locality of the species.

• **COMMENT.** Because of possible confusion be-

tween this species and other Lesser Antillean congeners (e.g., Barbour 1923, see also **Remarks**), some references to other species that predate Cochran's (1938) description may include references to specimens now assigned to *S. sabanus*.

• **ACKNOWLEDGMENTS.** Museum acronyms follow Leviton et al. (1985).

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